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Amendments to the Claims:

This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of Claims

1. (currently amended) A linear motor glide apparatus, comprising:

a unitary bearing rail structure ~~providing~~ exhibiting a shallow channel with a width and a base, with an array of magnets disposed on a the base of the channel ~~surface thereof~~, ~~the~~ with outer side perimeters of the bearing rail structure ~~exhibiting~~ forming bearing rail surfaces for receiving bearings to roll against the surfaces~~;~~, with the shallow channel exhibiting a depth that is about equal to a thickness of the magnets, and with a bearing rail surface exhibiting a height that is substantially less than the width of the channel;

bearing block assemblies comprising bearings position-able to roll against the bearing rail surfaces of the unitary bearing rail structure; and

one or more connecting structures ~~adapted to affix a linear motor coil assembly thereto and~~ to which a plurality of the bearing block assemblies are mounted, the connecting structures adapted to mount a linear motor coil assembly above the channel when the bearings are positioned to roll against the bearing rail surfaces.

2. (cancelled)

3. (cancelled)

4. (currently amended) The apparatus of claim 13, wherein the one or more connecting structures is mounted to a bearing block assembly by a bolts inserted into a bolt holes with a radial clearance sufficient to enable adjustment of a position of a bearing of the bearing block assembly relative to a bearing rail surface exhibited by the bearing rail structure.

5. (cancelled)

6. (cancelled)

7. (previously presented) The apparatus of claim 1, wherein a mechanism for mounting the linear motor coil assembly to a connecting structure enables the linear motor coil assembly to exhibit an amount of thermal expansion, for a specified temperature increase, that substantially exceeds an amount of thermal expansion exhibited by the connecting structure for the specified temperature increase.

8. (original) The apparatus of claim 1, wherein the bearing rail structure further comprises position indicator marks enabling detection by sensors of a position of the linear motor assembly.

9. (currently amended) A method of constructing a linear motor assembly, comprising ~~the steps of~~:

providing a unitary bearing rail structure that exhibits a shallow channel with a width, and a base ~~a surface for~~ upon which an array of magnets is disposed, with outer side perimeters of the bearing rail structure forming ~~exhibiting~~ bearing rail surfaces for receiving bearings to roll against the surfaces~~;~~, with the depth of the channel about equal to a thickness of the magnets, and a height of a an outer side perimeter substantially less than the channel width;

providing bearing block assemblies comprising bearings position-able to roll against the bearing rail surfaces of the bearing rail structure; and

providing one or more connecting structures ~~adapted to affix a linear motor coil assembly thereto and~~ to which a plurality of the bearing block assemblies are mounted~~.~~, the connecting structures adapted to mount a linear motor coil assembly above the channel when the bearings are positioned to roll against the bearing rail surfaces.

10. (original) The method of claim 9, wherein one or more of the connecting structures conducts heat away from the linear motor coil assembly.

11. (original) The method of claim 9, wherein one or more of the connecting structures exhibits, for a specified temperature range, a coefficient of thermal expansion that is substantially less than a coefficient of thermal expansion of a material which the linear motor coil assembly is comprised for the specified temperature range.

12. (cancelled)

13. (cancelled)

14. (cancelled)

15. (cancelled)

16. (original) The method of claim 9, further comprising the step of providing an anti-cogging mechanism for reducing a cogging force exhibited by the linear motor.

17. (previously presented) The method of claim 9, further comprising an anti-cogging mechanism comprising a coil wrapped about a core, and wherein a current to reduce the cogging force is applied to the coil.

18. (cancelled)

19. (currently amended) The method of claim 2018, further comprising a current source to apply current to the windings to reduce the cogging force.

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20. (currently amended) A method for reducing a cogging force exhibited by a linear motor ~~The method of claim 18~~, comprising the steps of:

providing a unitary bearing rail structure that exhibits a surface upon which an array of magnets is disposed, the bearing rail structure exhibiting bearing rail surfaces for receiving bearings to roll against the surfaces;

providing bearing block assemblies comprising bearings positioned to roll on the bearing rail surfaces of the bearing rail structure; ~~and~~

providing one or more connecting structures adapted to affix a linear motor coil assembly thereto and to which a plurality of the bearing block assemblies are mounted.;

providing a core element positioned at an end of a core of the linear motor to move with the core; and

windings wrapped around the core element so that current induced in the windings provides an anti-cogging force.

21. (new) The apparatus of claim 1, wherein the unitary bearing rail structure further comprises a ledge to mount a cover over the magnets disposed on the base of the channel.

22. (new) The apparatus of claim 1, wherein a connecting structure mounts to the linear motor coil assembly by bolts in bolt holes exhibiting a radial clearance to accommodate thermal expansion of the linear motor coil assembly.

23. (new) The method of claim 9, wherein the unitary bearing rail structure further comprises a ledge to mount a cover over the magnets disposed on the base of the channel.

24. (new) The method of claim 20, wherein a connecting structure mounts to the linear motor coil assembly by bolts in bolt holes exhibiting a radial clearance to accommodate thermal expansion of the linear motor coil assembly.

25. (new) The method of claim 9, wherein the unitary bearing rail structure further comprises position indicator marks enabling detection by sensors of a position of the linear motor assembly.

26. (new) The method of claim 1, wherein a connecting structure mounts to the linear motor coil assembly by bolts in bolt holes exhibiting a radial clearance to accommodate thermal expansion of the linear motor coil assembly.